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DHEC Health Update

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Increase in Reports of Cryptosporidiosis In Charleston, Berkeley, and Dorchester Counties

Update Summary

- Charleston, Berkeley, and Dorchester counties have documented an increase in reports of Cryptosporidia positive stool specimens.
- Health Care Providers are reminded to report all cases of Cryptosporidiosis to Local Public Health.
- Health Care providers should request appropriate laboratory tests for Cryptosporidiosis in persons that have clinically compatible symptoms, especially those persons that report recreational water exposure.

Background Information

Since June 1st DHEC has received reports of 23 cases of laboratory-confirmed Cryptosporidiosis among children and adults in Charleston, Berkeley, and Dorchester counties. Many of these cases appear to be related to **recreational water exposure**, which is the primary method of spread of this illness in South Carolina, especially during the summer months. The epidemiological investigation of reported cases has not identified a single common source exposure; however this investigation is ongoing.

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites of the genus *Cryptosporidium*. Both the disease and the parasite are commonly known as "crypto." Once an animal or person is infected, the parasite lives in the intestine and passes in the stool. The spore phase of the parasite's life cycle, or "oocyst", allows it to survive outside the body for long periods of time and makes it **very resistant to chlorine-based disinfectants**. Crypto may survive up to a week in swimming pools under standard chlorination procedures.

Clinical Information

The median incubation time for cryptosporidiosis is 7 days. The most common symptom of Cryptosporidiosis is watery diarrhea. Other symptoms may include dehydration, weight loss, stomach cramps or pain, fever, nausea, and vomiting. Some people with crypto will have no symptoms at all. In immunocompetent people, the diarrheal disease is self-limited, usually lasting 1-20 days. While the small intestine is the site most commonly affected, *Cryptosporidium* infections could possibly affect other areas of the digestive or the respiratory tract. Shedding of oocysts in stool may continue for up to two weeks after symptom resolution.

Risk Factors for Cryptosporidium

People who are most likely to become infected with *Cryptosporidium* include:

- Swimmers who swallow water while swimming in recreational swimming waters, lakes, rivers, ponds, and streams
- Children who attend day care centers, including diapered children
- Child care workers
- Parents of infected children
- Persons in contact with infected farm livestock, petting zoo animals, or pets.
- International travelers
- Backpackers, hikers, and campers who drink unfiltered, untreated water
- Persons who drink from shallow, unprotected wells
- Persons who swallow water from contaminated sources

Diagnostic Tests and Laboratory Confirmation

- The detection of oocyts on microscopic examination of stool specimens is diagnostic.
 Unfortunately, routine laboratory examination of stool for ova and parasites will not detect Cryotosporidium species.
- The sucrose flotation method or formalin ethyl acetate method is used to concentrate oocysts in stool before staining with a modified Kinyoun acid-fast stain.
- Monoclonal antibody-based fluorescein-conjugated stain for oocysts in stool and an enzyme immunoassay (EIA) for detecting antigen in stool are available commercially.
- Because shedding can be intermittent, at least 3 stool specimens collected on separate days should be examined before considering test results negative. Oocysts are small (4-6 UM in diameter) and can be missed in a rapid scan of a slide.

Sources for Additional Information

Additional information regarding Cryptosporidiosis and disease transmission in recreational water can be found at:

- http://www.cdc.gov/healthyswimming/index.htm
- http://www.cdc.gov/ncidod/dpd/parasites/cryptosporidiosis
- American Academy of Pediatrics. Red Book: 2006 Report of the Committee on Infectious Diseases. 27th ed.

DHEC Contact Information for Reportable Diseases and Reporting Requirements

Reporting of cases or possible cases of Cryptosporidiosis is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2006 List of Reportable Conditions available at: http://www.scdhec.gov/health/disease/docs/reportable_conditions.pdf.

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

Regional Public Health Offices

Mail or call reports to the Epidemiology Office in each Public Health Region.

Region 1 (Anderson, Oconee)

220 McGee Road Anderson, SC 29625 Phone: (864) 231-1966 Fax: (864) 260-5623

Nights / Weekends: 1-866-298-4442

(Abbeville, Edgefield, Greenwood, Laurens, McCormick, Saluda)

1736 S. Main Street Greenwood, SC 29646 Phone: 1-888-218-5475 Fax: (864) 942-3690

Nights / Weekends: 1-800-420-1915

Region 2 (Greenville, Pickens)

PO Box 2507 200 University Ridge Greenville, SC 29602-2507 Phone: (864) 282-4139 Fax: (864) 282-4373

Nights / Weekends: (864) 460-5355 or

1-800-993-1186

(Cherokee, Spartanburg, Union)

PO Box 4217 151 E. Wood Street Spartanburg, SC 29305-4217 Phone: (864) 596-2227 ext. 210 Fax: (864) 596-3443

Nights / Weekends: (864) 809-3825 or

1-800-993-1186

Region 3 (Chester, Lancaster, York) PO Box 817

1833 Pageland Highway Lancaster, SC 29721 Phone: (803) 286-9948 Fax: (803) 286-5418

Nights / Weekends: 1-866-867-3886 or 1-888-739-0748

(Fairfield, Lexington, Newberry, Richland)

2000 Hampton Street Columbia, SC 29204 Phone: (803) 576-2749 Fax: (803) 576-2993

Nights / Weekends: (803) 304-4252

Region 4

(Clarendon, Kershaw, Lee, Sumter)

PO Box 1628 105 North Magnolia Street Sumter, SC 29150 Phone: (803) 773-5511 Fax: (803) 773-6366

Nights/Weekends: 1-877-831-4647

(Chesterfield, Darlington, Dillon, Florence, Marlboro, Marion)

145 E. Cheves Street Florence, SC 29506 Phone: (843) 661-4830 Fax: (843) 661-4859

Nights / Weekends: (843) 660-8145

(Bamberg, Calhoun, Orangeburg)

PO Box 1126 1550 Carolina Avenue Orangeburg, SC 29116 Phone: (803) 533-7199 Fax: (803) 536-9118

Nights / Weekends: (803) 954-8513

Region 5 (cont)

(Aiken, Allendale, Barnwell) 1680 Richland Avenue, W. Suite 40

Aiken, SC 29801 Phone: (803) 642-1618 Fax: (803) 643-8386

Nights / Weekends: (803) 827-8668 or 1-800-614-1519

Region 6

(Georgetown, Horry, Williamsburg)

2830 Oak Street Conway, SC 29526-4560 Phone: (843) 365-3126 Fax: (843) 365-3153

Nights / Weekends: (843) 381-6710

Region 7

Berkeley, Charleston, Dorchester)

4050 Bridge View Drive, Suite 600 N. Charleston, SC 29405 Phone: (843) 746-3806 Fax: (843) 746-3851 Nights / Weekends: (843) 219-8470

(Beaufort, Colleton, Hampton, Jasper)

219 S. Lemacks Street Walterboro, SC 29488 Phone: (843) 525-7603 Fax: (843) 549-6845

Nights / Weekends: 1-800-614-4698

Bureau of Disease Control Acute Disease Epidemiology Division

1751 Calhoun Street Box 101106 Columbia, SC Phone: (803) 898-0861 Fax: (803) 898-0897

Nights / Weekends: 1-888-847-0902

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Health Advisory: provides important information for a specific incident or situation; may not require immediate action. Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.